fiber at its most vulnerable point, the nodes of Ranvier. They exert a necrosive chemical action on the elements of the interannular segment sometimes the axis-cylinder being relatively more affected than the other parts. The entire picture resembles a peri-axillar segmentary necrosis. If the axis-cylinder submits to grave alterations rupture and fatal degeneration follow, accompanied by the characteristic symptomatic conditions. HIGLEY.

TABES AND DIABETES. W. Croner (Zeitschrift für klinische Medicin, 1901, Vol. 41, No. 1-4.)

Many symptoms are common to both tabes and diabetes and even with positive signs it may be doubtful for some time whether one is dealing with the transient glycosuria of the nervous disorder or with a diabetes in which the neuritic symptoms are most prominent. According to the author both diseases rarelv occur together. Among symptoms characteristic of both may be mentioned irregular areas of anesthesia or analgesia, parethesiæ, especially about the legs and sexual organs, increased sensitiveness toward cold, lancinating pains, diminished sexual vigor, and trophic and secretory disturbances, such as malum perforans pedis, decubitus, hyperidrosis and muscular atrophv. Even Westphal's sign may occur in diabetes, but is of no prognostic importance. In those few cases, however, where both diseases really occur together, it may reasonably be asked whether this is accidental or whether some common etiological factor exists. The rarity speaks for coincidence, yet diabetes and tabes have been seen in different members of the same family, and diabetes has occurred after injury to the cord. Diabetes insipidus may occur with tabes and it is admitted that the former not so seldom develops into diabetes mellitus. Finally, syphilis is looked upon by many as being capable of producing both disorders.

UEBER DIE KLINISCHEN FORMEN DER GEFÄNGNISSPSYCHOSEN (The Clinical Forms of Prison Psychoses). Rüdia (Allg. Zeitschrift für Psychiatrie, 1901, lviii, 2 and 3, s. 447).

After reviewing briefly the opinions of different authors since the middle of the last century, the author gives the results of his investigation of the cases of insane prisoners at Heidelberg during nine years. There came under his observation 94 cases, 84 men and 10 women. Among these he found by far the most frequent clinical type to be katatonia, which occurred in 50 cases (or 55 per cent.). This form again he divides into three groups, the first and largest being what he calls the "vagrant group," in which, after a somewhat variable period of normal development, order and industry, the young patient gives up work and takes to wandering about, begs and finally commits petty thefts which bring him into conflict with the authorities. There may be no marked mental symptoms other than the above, or there may be even before arrest, symptoms of katatonic or hebephrenic character. His second group is that of "habitual criminals," persons who from youth have been addicted to theft, violence and other crimes, who prior to imprisonment have shown no definite symptoms of insanity, but who during confinement (and generally in solitary confinement) develop katatonic symptoms. The third group consists of his "occasional criminals," who have been in the main normal, but who develop katatonia during solitary confinement on account of a single grave crime.

Next to katatonia in frequency, he has found the alcohol psychoses, in all 9 cases, of which 6 were of delirium tremens and 3 of chronic alcohol "Wahnsinn" (delusional insanity). Next came epilepsy and hysteria, of the first 8 cases, of the second 3 cases. Further he encountered 2 cases of imbecility, one of "chronic paranoia in epilepsy (Buchholz), and 3 cases of "paranoia (Kraepelin)." In the remaining cases the diagnosis could not be made with certainty owing to imperfect anamnesis or too short observation. In all the cases it was evident either that the mental disturbance commenced before the imprisonment or that it lasted longer than could be accounted for by the injurious influence of confinement. Also that the types of disease were such as commonly occur in persons who never have been imprisoned.

That there is any special form of insanity peculiar to prisoners seems negatived, but study of the Heidelberg material shows that every form of psychosis occurring in a prison may present at least temporarily a symptom-complex, made familiar by various authors and consisting in the presence of hallucinations especially of hearing (promises of pardon), delusions of persecution and unseen influence, anxiety, uneasiness and irritability. This symptom-complex is not specially dependent upon solitary confinement, but occurs also in collective confinement. It is noteworthy that the above symptoms occur not only in forms of mental disease in which hallucinatory episodes are common, but also in those in which hallucinations of hearing are excessively infrequent. In the first case the hallucinations are simply calmed by the prison surroundings; in the second, the influence of solitude, contrition and the excitement of examination act so powerfully as to produce them even in diseases in which hallucinations are usually absent.

Both classes tend to improve when removed from the prison surroundings, but whether recovery takes place or not is dependent upon the character of basal disease. ALLEN.

EXPERIMENTELLE UNTERSUCHUNGEN ÜBER DIE WIRKUNG DES DIPHTHERIEGIFTES AUF DAS NERVENSYSTEM (The Action of Diphtheria Toxin on the Nervous System). Bielschowsky and Nartowski (Neurol. Centralbl., July 1, 1900, p. 638).

These investigators describe experiments which they have recently carried out in Mendel's laboratory. The pathological changes have been located in three situations—the peripheral nerves, the spinal cord (parenchymatous and interstitial myelitis, with secondary changes in the nerves and muscles), and the muscles. The authors injected sterile diphtheria toxin into white mice, rabbits, and guinea-pigs. Large doses produced rapid death, with anatomical evidence both of general intoxication and of a special action on the vascular system. The animals which survived this stage developed, eight or ten days after the injection, more or less typical post-diphtherial palsy. The vessels were found quite full and with pathological changes in their walls leading to scattered foci of hemorrhage. There was no sign of meningitis or encephalitis, nor were the nerve cells of the brain or cord with a few isolated exceptions affected. Preparations by Marchi's method showed nothing noteworthy in the brain or cord, but extensive degeneration of the myelin sheaths of the peripheral nerves; this was confirmed by Weigert's procedure. The muscle fibers were the seat of fatty change. The conclusion is drawn that the essential lesion is parenchymatous degeneration of the peripheral nerves; the slight changes in the anterior horn cells are held to be secondary or of cachetic origin; while the vascular alterations play but a subordinate rôle in the pathogeny of post-diphtherial palsy.—*B. M. Journ.*